# NEW SPECIES AND ADDITIONAL RECORDS OF THE TACHYINE *PHILIPIS* ERWIN (COLEOPTERA: CARABIDAE: BEMBIDIINAE)

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As a supplement to the Revision of the genus *Philipis* Erwin (Baehr 1995) three new species are described: *P. unistriata* sp. nov. from Mt Elliot near Townsville, *P. striatoides* sp. nov. from Mt. Murray Prior near Cairns, both northern Queensland, and *P. inexspectata* sp. nov. from Gibraltar Range in northern New South Wales. The latter is the first record of the genus from outside of Queensland. Additional records of 20 known species are recorded, slightly enlarging the geographic or altitudinal range in some cases. 

Coleoptera, Carabidae, *Philipis*, *Queensland*, *new species*.

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As a supplement to the revision of the tachyine *Philipis* Erwin (Baehr, 1995) additional records of described species are presented that have been since collected by G. B. Monteith and co-workers of the Queensland Museum on mountains of eastern Queensland, some being mountain tops that had not been worked before. Some records enlarge the geographical range or the altitudinal range of certain species, and of some species that were known from few specimens only, additional material now is at hand. This may justify recording of all localities. Also three new species are described. One is of special interest, because it represents the first record of any *Philipis* in northern New South Wales.

A few species have been collected by members of the Cooperative Research Centre for Tropical Rainforest Ecology and Management, Cairns. Such records are marked CRC, those from Queensland Museum arc without special labelling.

Species are arranged in alphabetical order. Format of the descriptions follows that used in Baehr (1995).

### Philipis alticola Baehr

Baehr, 1995: 324.

ADDITIONAL RECORD. 1 ex, NEQ: 17°24'S, 145°45'E, Bartle Frere, S. Peak summit, 29 Nov 1998, G. Monteith, Pyrethrum trees/logs, 1620m, 1977.

NOTE. This species was known from a single specimen collected at the summit of Bellenden Ker; its range is extended to include the top of adjacent Mt. Bartle Frere.

# Philipis alutacea Baehr

Baehr, 1995: 354,

ADDITIONAL RECORDS. 1 ex, Bellenden Ker Range, NQ, Summit TV Stn., 1560m, 17 Oct.-Nov. 5,1981, EARTHWATCH/QLD. MUSEUM Pyrethrum knockdown; 3 ex, NEQ: 17°24'S, 145°45'E, Bartle Frere, S. Peak summit, 29 Nov 1998, G. Monteith, Pyrethrum trees/logs, 1620m, 1977.

NOTE. This species was known from Bellenden Ker only; its range is extended to the summit of adjacent Mt. Bartle Frere.

### Philipis bicolor Baehr

Baehr, 1995: 361.

ADDITIONAL RECORDS. 22 ex, NEQ: 16°30'S 145°19'E, Mt. Demi summit, 1000m, 16-17 Dec 1995, Monteith, Pyrethrum, trees.

NOTE. The new record is from within the known range.

#### Philipis castanea Baehr

Baehr, 1995: 331.

ADDITIONAL RECORD. 1 ex, NEQ: 16.11S 145.24E, Pimm's Block (Grove), 1000m, FIT PO6F, 13 Mar-8 May 1998, S. Grove, 8097 (CRC).

NOTE. The new record is from just south of the known range.

### Philipis cooki Baehr

Baehr, 1995: 325.

ADDITIONAL RECORD. 1 ex, NEQ: 16°31'S 146°16'E, Mt Lewis Rd (Hut) 14 July 1996, 1200m, G.B. Monteith, Pyrethrum, trecs.

NOTE. The new record is from within the known range.

#### Philipis distinguenda Baehr

Baehr, 1995; 366.

ADDITIONAL RECORD. 1 ex, NEQ: 16°30'S 145°16'E, Hilltop, 18 km N Mt Lewis 23 Nov 1998. G. B. Monteith. Pyrethrum trees. 1300m. RF. 1939.

NOTE. The new record slightly enlarges the range of this species to the south.

# Philipis frerei Baehr

Baehr, 1995; 351.

ADDITIONAL RECORDS. 11 ex, NEQ: 17°24'S 145°45'E, Bartle Frere, S. Peak summit, 29 Nov 1998, G. Monteith, Pyrethrum trees/logs, 1620m, 1977.

NOTE. The new record is from within the known range.

## Philipis laevigata Baehr

Baehr, 1995: 326.

ADDITIONAL RECORDS. 2 ex, NEQ: 16°26'S 145°12'E, Mt. Spurgeon Summit, 21 Nov 1997. 1320 m, G. B. Monteith 1637, Pyrethrum, trees & logs (QMB).

NOTE. The new record is from within the known range.

# Philipis lustrans Baehr

Baehr, 1995; 367.

ADDITIONAL RECORDS. 7 ex, NEQ: 16°56'S 145°51'E, Mt Murray Prior, 7 Dec 1995, G Monteith, Pyrethrum, trees & logs; 4 ex, NEQ: 16°56'S 145°51'E, Mt. Murray Prior, 3I Oct 1995, 770m, Monteith & Cook, Pyrethrum, trees & rocks; 8 ex, NEQ: 16°56'S 145°51'E, Mt. Murray Prior, 7 Dec 1998, G Monteith, Pyrethrum, trees. Casuarina 2034.

NOTE. The new records are from within the known range,

### Philipis picta Baehr

Baehr, 1995: 359.

ADDITIONAL RECORDS. 1 ex, NEQ: 15°47'S 145°19'E, Mt. Hartley summit 8 Nov 1995-16 Jan 1996, Monteith, Cook & Roberts, Pitfall traps, 790 m; 1 ex, NEQ: 15°47'S 145°19'E, Mt. Hartley. 750 m. 8 Nov 1995. G. Monteith Pyrethrum, trees & logs.

NOTE. The new record slightly enlarges the range of this species to the south. Sampling in pitfal traps is rather unusual for species of genus *Philipis*, because they generally live on tree trunks.

#### Philipis planicola Baehr

Baehr, 1995; 341,

ADDITIONAL RECORDS. 8 ex, NEQ: 17°17'S 145°58'E, Graham Range, 550m, 1 Nov 1995, G. Monteith, Pyrethrum, trees & logs; 2 ex, NEQ: 17°17'S 145°58'E, Graham Range, 550m, 8-9 Dec 1995, Monteith, Thompson & Cook, Pyrethrum, trees & logs.

NOTE. The new records are close to the recorded range, but the altitude range is greater than reported before, because the species was recorded previously only in lowland. Nevertheless, this does not really seem to be a montane species.

# Philipis rufescens Baehr

Baehr, 1995: 355.

ADDITIONAL RECORDS. 2 ex, Bellenden Ker Range, NQ, Summit TV Stn., 1560m, 17 Oct.-Nov. 5,1981, EARTHWATCH/QLD.MUSEUM Pyrcthrum knockdown; 3 ex, NEQ: 17°16'S 145°51'E, Bellenden Ker, 1994 Crash site. 1 Dec 1998. G Monteith. Pyrethrum trees. 1325m 1992.

NOTE. The new record is from within the known range.

## Philipis ruficollis Baehr

Baehr, 1995: 334.

ADDITIONAL RECORD. 1 ex, NEQ: 15°49'S 145°17'E, Mt. Finnigan summit, RF, 1100 m, 20-22 Nov 1998, G. Monteith, P. Bouchard & A. O'Toole. 1928.

NOTE. The new record is from within the known range.

### Philipis sinuata Baehr

Baehr, 1995: 365.

ADDITIONAL RECORDS. 2 ex, Bellenden Ker Range, NQ, Summit TV Stn., 1560m, 17 Oct.-Nov. 5,1981, EARTHWATCH/QLD. MUSEUM Pyrethrum knockdown; 1 ex, AUST: QLD: NE: Bellenden Ker, summit TV stn. 16 Apr 1999, G. B. & S. R. Monteith/QM berleseate 993, 17°16′S 145°51′E, Rainforest, 1500 m, Moss ex trees & logs; I ex, NEQ: 17°54′S 145°41′E, Mt Kooroomool, summit 7 km S, 3 Dec 1998, Monteith, 1050m, Dungtrap, 7.30-10.00 pm. NIGHT, 2009; 30 ex, NEQ: 17°24′S 145°45′E, Bartle Frere, S. Peak summit, 29 Nov 1998, G. Monteith, Pyrethrum trees/logs, 1620m, 1977; 9 ex, NEQ: 17°24′S 145°49′E, Bartle Frere, Top Camp, 1500m, 29 Nov 1998, G. Monteith, Pyrethrum trees, R.F. 1978.

NOTE. The new records are from within the known range.

## Philipis striata Baehr

Bachr, 1995: 339,

ADDITIONAL RECORDS. 1 ex, NEQ: 16.13S 145.24E, Hutchinson Ck (Grove) 30 m, FIT HO3F, 11 Feb-14 Mar 1998, S. Grove 2900 (CRC); 1 ex, NEQ: 16.09S 145.24E, Cooper Creek (Grove) 140 m, FIT CO1F, 10 Feb-16 Mar 1998, S. Grove 2722 (CRC).

NOTE. The new records are from localities just outside the known range.

#### Philipis subtropica Baehr

Baehr, 1995: 353.

ADDITIONAL RECORDS. 2 ex, QLD: SE: Mt. Bithongabel, Lamington Nt. Pk. 8 Oct 1979, G. B. Monteith/ QM Berleseate Nr. 203 Rainforest stiek brushing; 1 ex, SEQ: Mt. Bithongabel, Lamington NP, 8 Oct 1979, G. Monteith Pyrethrum on *Nothofagus*.

NOTE. The new records are from within the known range.

## Philipis sulcata Bachr

Baehr, 1995: 350.

ADDITIONAL RECORDS. 10 ex, NEQ: 16°30'S 145°16'E, Hilltop, 18 km N Mt Lewis 23 Nov 1998. G. B. Monteith. Pyrethrum trees. 1300m. RF. **1939**.

NOTE. The new record enlarges the range of this species slightly to the south.

# Philipis thompsoni Baehr

Baehr, 995: 346.

ADDITIONAL RECORDS. 3 ex, AUST: QLD: NE: Upper Boulder Ck. 8 km N. Tully, 7 Dec 1989 Monteith Thompson Janetski/ Q.M. Berleseate No. 828, 145.55'E. 17.50'S. Rainforest. 1000m, Moss; 2 ex, NEQ: 16°55'S 145°40'E, Mt. Williams, 0.5 km NW,28 Nov. 1997. 870m, G.B. Monteith. 1662, Pyrethrum, trees & logs; 3 ex, NEO: 17°13'S 145°25'E, 3 km W. Bones Knob, 10 Dec 1995, 1100m, Monteih Cook Thompson, Pyrethrum, trees & logs; 2 ex, NEQ: 17°26'S 145°42'E, Hughes Rd. Topaz, 650m, 4 Dec 1993, Monteith & Janetzki, Pyrethrum, trees & logs; 1 ex, NEQ: 17°36'S 145°42'E, Maalan Rd. 2 km S. of Palmerston Hwy, 750m, 18 May 1995, G. Monteith, Pyrethrum, tree bases; 5 ex, NEQ: 17°54'S 145°41, Mt Kooroomool, summit 7 km S, 4 Dee 1998, 1050m, G B. Monteith, Pyrethrum trees & logs, 2011; 3 ex, NEQ: 17°54'S 145°41, Mt Kooroomool, saddle 7 km S, 3 Dec 1998, G. Monteith, Pyrethrum trees, 860m, 2006; 12 ex, NEQ: 17°33'S 145°33'E, Mt Fisher, summit, 1360 m, 8 Feb 1999, rainforest. GB Monteith, pyrethrum trees & logs, **2176**; 1 ex, NEQ: 17°33'S 145°33'E, Mt Fisher, ½ km NW, 8 Feb 1999, 1280 km R/F. GB Monteith, pyrethrum trees & logs, 2178; 3 ex, 17°36.945S 145°47.748E, Palmerston Nt. Pk. QLD, Pyrethrum mist, Planted Trans. 1, 30 m, 2 Dec 2000, C. Ozanne (CRC).

NOTE. The new records of this very widespread fully winged species are within the known range.

#### Philipis tribulationis Baehr

Baehr, 1995: 345.

ADDITIONAL RECORDS. 1 ex, Windsor Tableland, N.Qld. 27 Dee 88 - 9 Jan 1989, E. Schmidt & ANZSES Site 3, flt. intercept; 1 ex, AUST; NQ: 16°23'S 145°17'E, UpperWhyanbccl Ck. 5 Sept 1992. 1150 m, G Monteith. Pyrethrum, mossy rocks.

NOTE. The new records are from within the known range.

#### Philipis unicolor Baehr

Baehr, 1995: 332.

ADDITIONAL RECORD. 1 ex, Bellenden Ker Range, NQ, Cable Tower 3, 1054m, 17 Oct.-Nov.5.1981, EARTHWATCH/QLD.MUSEUM Pyrethrum knockdown.

NOTE. The new record is from within the known range.

# Philipis unistriata sp. nov. (Figs 1, 2A)

ETYMOLOGY. Refers to the absence of all striae except for the sutural stria.

MATERIAL EXAMINED. HOLOTYPE: &, AUST: QLD: NE: Mt Elliot, NE slope, 5 Dec 1986, G. Monteith G. Thompson/ Q.M. Bcrleseate No.724, 19.29'S 146.48'E. Rainforest 1000m, Litter (QMT 93348).

D1AGNOSIS. Medium sized, rather convex species, with s-shaped fascia in posterior half of elytra. Distinguished from all species with similar elytral pattern (except *P. tribulationis*) by presence of the sutural stria only. From the latter species casily distinguished by distinctly wider pronotum and 4-setose parameres.

DESCRIPTION. Measurements. Length: 2.15mm; width: 1.05mm. Ratios: Width pronotum/head: 1.54; width/length of pronotum: 1.67; width basc/apex of pronotum: 1.40; width widest diameter/base of pronotum: 1.08; length/width of elytra: 1.29.

Colour: Dark piceous, base to anterior 1/3 or 1/2 and apex of elytra slightly lighter, posterior half of suture even lighter, reddish-piceous. Elytra with a well-defined, contrasting, oblique, s-shaped, light reddish fascia in posterior 2/5 medially reaching 2nd stria. Legs yellow.

Head. Median antennomeres c. 1.3 x as long as wide. Microreticulation distinct on labrum and anterior border of clypeus, superficial and rather difficult to see on frons, absent on vertex, about isodiametric. Surface glossy.

Pronotum. Transverse, convex, widest about in middle, base much wider than apex. Lateral margin posteriorly almost straight, slightly oblique. Posterior angles rectangular, feebly produced over lateral part of base. Carina at posterior angle clongate, rather oblique, slightly incurved. Anterior transverse sulcus deep, barely interrupted. Posterior transverse sulcus very deep, interrupted by a large, deep fovea. Anterior lateral seta situated slightly behind anterior third of margin. Microreticulation completely absent, surface highly glossy.

*Elytra.* Rather short, highly convex, egg-shaped, widest about in middle. Lateral border evenly curved, extremely finely serrrate and pilosc.

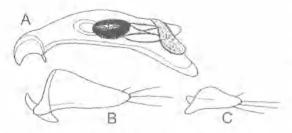


FIG. 1. Philipis unistriata sp. nov. A, aedeagus, and B. C, parameres: scale bar = 0.25mm.

Sutural stria very faintly crenulate. Only inner striae in basal half perceptible as rows of extremely superfical punctures, outer striae absent, though all striae except for sutural one barely perceptible. Sutural interval basally slightly convex, 8<sup>th</sup> stria deeply impressed, punctate-crenulate, barely attaining posterior marginal pore. Recurrent striole rather evenly curved, anteriorly free. Anterior discal pore in anterior third, posterior pore slightly in front of posterior third. Microreticulation absent on disk, present though highly superficial at base, composed of transverse meshes. Surface glossy. Wings slightly shortened.

Lower surface. Metepisternum slightly longer than wide.

Male genitalia. Genital ring slightly asymmetric, triangular, apex rather elongate. Aedeagus moderately elongate, lower surface basally straight, gently curved to apex, apex fairly short, widely rounded off. Both parameres 4-setose.

Female genitalia. Unknown.

DISTRIBUTION. Mt Elliot near Townsville, N Queensland. Known only from type locality,

HABITAT. Sampled by Berlese extraction from rainforest litter at 1000m.

RELATIONSHIP This species belongs to the striata-group of species and is perhaps nearest related to P. tribulationis Baehr and P. thompsoni Baehr.

# Philipis striatoides sp. nov. (Fig. 2B)

ETYMOLOGY. Like striata.

MATERIAL EXAMINED. HOLOTYPE: \$\Phi\$, NEQ: 16°56'S 145°51'E, Mt. Murray Prior, 31 Oct 1995, 770m, Monteith & Cook, Pyrethrum, trees & rocks (QMT 93347).

DIAGNOSIS. Rather small, short and wide, markedly convex species with s-shaped fascia in posterior half of elytra. Easily distinguished from species with similar elytral pattern by well-developed outer striae but rather depressed intervals and by weak microreticulation of the elytra. Further distinguished from most similar *P striata* Bachr by wider pronotum with more convex margins and narrower base, and by considerably shorter and more convex elytra.

DESCRIPTION. Measurements. Length 2.15mm, width 1.08mm. Ratios: width pronotum /head: 1.50; width/length of pronotum: 1.59; width base/apex of pronotum: 1.41; width widest diameter/base of pronotum: 1.08; length/width of clytra: 1.27.

Colour: Dark piceous, pronotum and apex of elytra very slightly lighter. Elytra with a well-defined, contrasting, oblique, s-shaped, light reddish fascia in posterior 2/5, medially attaining 2<sup>nd</sup> stria. Legs yellow.

Head. Median antennomeres c. 1.3 x as long as wide. Microreticulation distinct on labrum and anterior border of clypeus, superficial on frons, absent on vertex, about isodiametric, Surface glossy.

Pronotum. Transverse, convex, widest about in middle, base much wider than apex. Lateral margin posteriorly almost straight, slightly oblique. Posterior angles rectangular, feebly produced over lateral part of base. Carina at posterior angle elongate, rather oblique, slightly incurved. Anterior transverse sulcus deep, barely interrupted. Posterior transverse sulcus very deep, interrupted by a large, deep fovea. Anterior lateral seta situated slightly behind anterior third of margin. Microreticulation completely absent, surface highly glossy.

Elytra. Rather short, highly convex, egg-shaped, widest about in middle. Lateral border evenly curved, extremely finely serrrate and pilose. Sutural stria very faintly crenulate. All striac distinct and marked by rows of punctures, two inner stiae in basal half even slightly impressed. Four to five inner intervals at least basally slightly convex. 8th stria deeply impressed, punctate-crenulate, barely attaining posterior marginal pore. Recurrent striole rather evenly curved, anteriorly meeting 3rd stria. Anterior discal pore in anterior third, posterior pore slightly in front of posterior third. Microreticulation present though highly superficial, best seen from laterally, composed of transverse

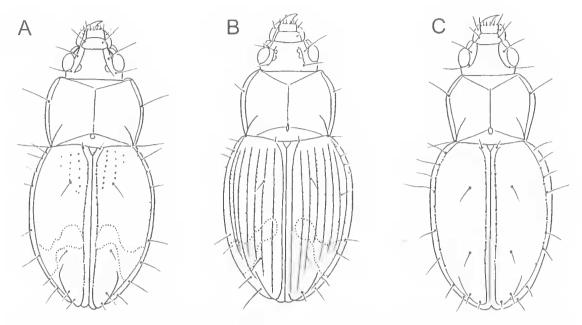


FIG. 2. Habitus, A, *Philipis unistriata* sp. nov. B, *Philipis striatoides* sp. nov. C, *Philipis inexspectata* sp. nov. Lengths: 2.15mm; 2.15mm; 2.55mm.

meshes. Surface glossy. Wings slightly shortened.

Lower surface. Metepisternum slightly longer than wide.

*Male genitalia*. Unknown.

Female genitalia. Similar to other species of the *striata*-group.

DISTRIBUTION. Mt. Murray Prior near Cairns, north Queensland. Known only from type locality.

HABITAT. Sampled by pyrethrum knockdown on mossy tree trunks or rocks in rainforest at 770m. Collected end of October.

RELATIONSHIP. This species belongs to the *striata* group of species and is nearest related to *P. striata* Baehr.

# Philipis inexspectata sp. nov. (Fig. 2C)

ETYMOLOGY. The name refers to the unexspected occurrence of this species in New South Wales.

MATERIAL EXAMINED. HOLOTYPE: \$\,\ \text{Gibraltar} \text{Range Nat. Park, NSW 30 Mar 1980, \$\text{G}\$ B. Monteith Pyrethrum/Xanthorrhoea (QMT 93346).}

DIAGNOSIS. Rather large, elongate, convex, rufo-piceous species without any elytral pattern. Easily distinguished from all other unicolourous

species by complete absence of all elytral striae except for the sutural stria. Further distinguished from most similar *P. unicolor* Baehr and *P. atra* Baehr by straight lateral margin of pronotum in basal half.

DESCRIPTION. Measurements. Length: 2.55mm; width: 1.20mm. Ratios: width pronotum/head: 1.53; width/length of pronotum: 1.45; width base/apex of pronotum: 1.39; width widest diameter/base of pronotum: 1.09; length/width of elytra: 1.35.

Colour: Reddish piceous, head and pronotum slightly darker than clytra. Elytra without any distinct pattern. Mouth parts, three basal antennomeres, and legs yellow.

Head. Median antennomeres c. 1.3 x as long as wide. Microreticulation distinct on labrum, superficial on anterior border of clypeus, absent on frons and vertex, about isodiametric. Surface highly glossy.

Pronotum. Transverse, convex, widest about in middle, base much wider than apex. Lateral margin posteriorly straight, even very faintly concave, oblique. Posterior angles rectangular, very feebly produced over lateral part of base. Carina at posterior angle elongate, almost straight, only anteriorly slightly incurved. Anterior transverse sulcus deep, barely interrupted. Posterior transverse sulcus very

deep, interrupted by a large, deep fovea. Anterior lateral seta situated slightly behind anterior third of margin. Microrcticulation completely absent, surface highly glossy.

Elytra. Rather elongate, highly convex, egg-shaped, widest about in middle. Lateral border evenly curved, not serrrate nor pilose. Striac completely absent except for sutural stria that is deeply impressed and in anterior half also punctate-crenulate. 8th stria deeply impressed, punctate-crenulate, just attaining the posterior pore of the anterior series of marginal pores. Recurrent striole rather evenly curved. Anterior discal pore in anterior third, posterior pore slightly in front of posterior third, both deep and punctiform. Microreticulation completely absent. Surface highly glossy. Wings slightly shortened.

Lower surface. Metepisternum slightly longer than wide.

Male genitalia. Unknown.

Female genitalia. Similar to other species of Philipis,

Variatiou. Unknown.

DISTRIBUTION. Gibraltar Range in northern New South Wales. Known only from type locality.

HABITAT. Sampled by pyrethrum knockdown on *Xauthorrhoea*, according to label. Altitude not recorded, though probably on or near top of range. Collected end of March,

RELATIONSHIP. The species belongs to the *laevis*-group of species and is probably nearest related to *P. subtropica* Baehr.

RECOGNITION. For recognition of the new species the key in my revision (Bachr, 1995) can be used. *P. inexspectata* will key out at couplet 2, for identification of *P. striatoides* sp. nov. follow on to couplet 17, and for *P. unistriata* follow on to couplet 19. These couplets then must be altered as follows:

- 3. Lateral borders of pronotum convex throughout, though sometimes irregularly convex. At least traces of additional striae (apart from sutural stria) present. Aedeagus as in fig. 4D-E (Baehr 1995). Mountains of Queensland north of Eungella Range. . . . . . . . . 4a

Lateral borders of pronotum posteriorly straight. Only sutural stria present. Acdeagus unknown. Gibraltar Range, northern New South Wales . . . . inexspectata

- 4a. = 4 in Bachr (1995)............
- 17. Microreticulation of elytra weak, surface glossy. Acdeagus, fig. 5B (Baehr 1995), or unknown. . . . 17a Microreticulation of elytra distinct, surface rather dull. Acdeagus unknown. Bellenden Ker Range at 1000m . . . . . . . . . . . . reticulata

Elytra shorter and more convex, length/width 1.27. Inner striae slightly impressed, intervals slightly convex. Base of pronotum narrower, ratio base/apex 1.41. Aedeagus unknown. Mt. Murray Prior near Cairns at 770m . . . . . . . . . . . . . . . . . striatoides

- Smaller species, body length <2.15mm, and base of pronotum rather narrow, ratio base/apex <1.42. Aedeagus, fig. 5E (Baehr 1995) or Fig. 1 . . . . . 19a</li>
   Commonly larger species, body length >2.20mm, or base of pronotum wider, ratio base/apex >1.45. Aedeagus as in figs 5F, 6A (Baehr 1995) . . . . . . . . . . . . 20
- 19a. Pronotum narrower, ratio width/length <1.53. Elytra slightly longer, ratio length/width >1.31. Transverse macula less oblique and sinuate, fig. 13E (Baehr 1995). Both parameres 5-setose, see fig 5E (Baehr 1995). Mountains west of Cape Tribulation and Windsor Tableland above 700m . . . . . . . . . . tribulationis

Pronotum wider, ratio width/length 1.67. Elytra slightly shorter, ratio length/width 1.29. Transverse macula more oblique and sinuate, fig. 2A. Both parameres 4-setose, fig. 1. Mt. Elliot near Townsville, at 1000m . unistriata

REMARKS. The additional records mentioned in this paper reveal: 1) ranges of known species probably are well known, because ample additional collecting efforts have not much altered the recorded ranges. 2) When sampling still unworked mountain tops the chance to detect additional species is substantial, and further work will probably yield additional new species, probably even in quite large numbers. This may apply in particular to the many yet unworked mountain tops in the southern tropical and the subtropical parts of eastern Queensland, between Mt Elliot and the Lamington Plateau. The detection of an additional new species in northern New South Wales supports this opinion.

Hence, the findings corroborate the idea that most species of *Philipis* in a way have been trapped on mountain tops where they occupy mostly very restricted ranges. The two new species, *P. unistriata* and *P. striatoides*, demonstrate that species widely separated geographically may be closely related. This,

again, demonstrates the very recent taxonomic diversification of this old stock.

An uncommon occurrence would be the observation of *P. inexspectata* living on grass-trees, *Xanthorrhoea*, if the label record is reliable and the single recorded specimen is not a straggler. This would mean that not all species of *Philipis* occur in rain forest.

### **ACKNOWLEDGEMENTS**

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